REMARKS

This amendment is in response to the office action of October 16, 2007. A dependency error has been corrected by the above amendment to claims 45 and 46.

Claims 14 and 19 are rejected under 35 U.S.C. 102(e) based on *Nack et al* (US 5,317,689).

The *Nack et al* reference describes an improved gaming or flight training (col. 1, lines 17-19) simulation system using voxels (col. 1, line 62) from a three dimensional database (col. 1, line 40) to process only the visible surfaces (col. 2, lines 9, 14, 34) in an area of interest (col. 3, line 5) in a flight corridor (col. 3, line 68) so as to present the scene content with variable resolution (col. 3, line 64-65) according to viewpoint maneuverability (col. 43, lines 18-19) of the gamer or trainee pilot (col. 4, line 5) in a natural manner like that seen by the human eye (col. 3, lines 10-11).

The flight corridor and viewpoint maneuverability is controlled according to the inputs (col. 5, line 64) or sensed actions (col. 7, lines 18-21) of the gamer or trainee pilot as the corridor is flown (col. 4, lines 5-6 and col. 5, lines 4-7) to simulate the helicopter moving through the corridor (col. 4, lines 48-49). In other words, the imagery is dynamically concentrated with higher resolution in the area that the gamer/trainee pilot is actively flying through and actively looking at.

The claimed invention, on the other hand, requires highly detailed and lesser detailed components simulating percepts of optical images of an object space cast on a simulated eye's retina with changing image content such that the relative direction of the visual axis of the viewer's eye with respect to the image space may analogously and passively follow the relative direction of a simulated eye's visual axis with respect to the object space by following a highly detailed component of

successive mixed optical images for stimulating the viewer to experience percepts corresponding to the simulated percepts.

In other words, unlike the active control of the detailed component by the gamer/trainee pilot as in *Nack et al*, the present invention calls for a passive experience, i.e., control by the apparatus itself with no input from the viewer. This passive approach is quite different from the flight corridor and viewpoint maneuverability being controlled according to the inputs or sensed actions of the gamer/trainee pilot as the corridor is actively flown by the gamer/trainee pilot to simulate the helicopter moving through the corridor.

Like *Nack et al*, the imagery according to the present invention is concentrated with higher resolution in an area of interest, but unlike *Nack et al*, the area of interest is not selected by the passive viewer. The viewer, according to the present invention, analogously and passively follows the highly detailed area so as to be stimulated to experience percepts corresponding to simulated percepts.

Therefore, *Nack et al* does not anticipate claim 14.

Claim 19 depends from claim 14 and further limits the highly detailed component so as to be mobile with respect to the lesser detailed component. The distinction here can best be understood by examining how the human eye rotates in its socket when directing its attention to different areas of interest (foveating on different objects in an object space) during real world perception. Rotation of the retina inside the eyeball causes accompanying rotation of the fovea as well. In other words, if we think of the retina as a sensor, the highly detailed part of the "sensor" (the fovea) is immobile with respect to the lesser detailed part of the retinal "sensor." When the eye rotates about in this way in real time to pickup different parts of the object space, even though the sensed scene may change dramatically in a herky-jerky way, the brain in combination with the vestibular system and other senses such as hearing somehow stabilizes the perception of the scene.

If we want to simulate rotation of the eye in the claimed simulated percepts for passive perception, we could simulate the way that the eye does it, i.e., by moving them both together. Or we could do it the way claimed in claim 19, with the highly detailed component being mobile with respect to the lesser detailed component. In this way, for instance, the lesser detailed component can be kept stable within the successive images while the highly detailed component is mobile with respect thereto.

Nack et al shows active perception and doesn't show anything about how to present mobility of the higher detailed voxels with respect to the area of lesser interest.

Therefore, *Nack et al* does not anticipate claim 19.

Withdrawal of the novelty rejection of claims 14 and 19 is requested.

Respectfully submitted,

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